

An optical waveguide structure has lines (2), crossings  
5 (3), and branchings (4). In the area of the branchings (4),  
the waveguide structure consists of planar waveguides made  
of a waveguide material that is put into troughs (7) formed  
into a substrate (8). The waveguide material has a higher  
refractive index than the material delimiting the troughs  
10 (7). In the area of said crossing (3) the waveguide  
structure consists of fibers (5) which cross in the area of  
the crossings.